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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,904	01/28/2000	Kun-Lung Wu	YO-999-594	2806

35195 7590 01/30/2004

FERENCE & ASSOCIATES  
400 BROAD STREET  
PITTSBURGH, PA 15143

EXAMINER

JAROENCHONWANIT, BUNJOB

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 01/30/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/493,904

Applicant(s)

WU ET AL.

Examiner

Bunjoo Jaroenchonwanit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This application has been reviewed; the objections and rejections cited are as stated below.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 14 and 27, the phrase “may be” renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

For examination purpose, the added limitation would be interpreted as defining proxy caches into which a URL.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 5-7, 14-15, 18-20 and 27 are rejected under 35 U.S.C. 102 (e) as being anticipated by Gupta et al., (US. 6,405,252).

6. In addition, Claims 1-3, 14-16 and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by Ross "Hash Routing for Collections of Shared Web Caches".

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

8. Claims 3, 8-11, 16 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta, as to claims 1 and 14, above, in view of Ross "Hash Routing for Collections of Shared Web Caches".

9. Gupta and Ross have been cited as prior art in the last office action. The teachings that applicable are respectfully maintained and incorporated by reference as set forth in the last office action.

10. Regarding to new limitation added, defining proxy caches into which a URL, it is inherent limitation, since Gupta teaching proxy caches is defined in DNS, URL is required for discerning the proxy caches. Ross teaching a URL of an object can be hashed into a hash space and distributed among multiple sibling caches (Page 59, Hash routing protocol).

### ***Response to Arguments***

11. Applicant's arguments with respect to claims N-NN have been considered but are deemed to be moot in view of the new grounds of rejection.

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12. Applicant's arguments filed on DATE have been fully considered but they are not deemed to be persuasive. In the remarks, applicant argued in substance that

(a) As to claims 1, 14 and 27, Gupta failed to teach, "choosing a URL to one of a predetermined candidate set of cache server";

(b) As to claims 3, Ross failed to teach, "forming a candidate set of nearby cache partition and allowing a URL to be hashed into one of the candidate set of partitions";

(c) There is no motivation and no expectation of success.

As to point (A), the argument does not commensurate with the claims' language. The claims required selecting a proxy caches from the candidate based on latency, which is taught in Gupta Col. 9, lines 1-14.

As to point (b), Boss teaches Hashing distributes the URL space among sibling caches, creating a single logical cache spread among many caches; Hash space H is partitioned into N set of siblings;  $h(u)$  is the hash function, where u is an object URL; if the value of  $h(u)$  belong to nth set, the client sends request to nth set of sibling cache. The teaching inferred that Ross forming cache partition and allows one URL to be hashed into multiple sibling cache or candidate partition (Ross, Page 59, Hashing routing protocol).

As to point (c), examiner disagreed, the independent claims as written merely required mapping URL with proxy cache and selecting the proxy cache base on latency. Such requirement is not only conventional load balancing scheme, which is well known and being utilized in the network, as being rejection by Gupta. Gupta also utilized DNS for storing link to proxy caches. Ross taught hashed single URL's object into multiple sibling cached, generating a

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hashed value, to modifying DNS in Gupta to store hashed value is required minor modification which, any skilled network Internet administrator can do with highly expectation of success.

Regarding to motivation, Ross suggested that using collection of caches the system would be more robust in the face of cache failed and have significant advantage over convention Internet caching. Thus it would have been obvious top an ordinary skill in the art to be motivate to improve conventional Internet caching as taught be Gupta in order to gain the robustness and performance efficiency.

13. The reply filed on 12/02/03 is not fully responsive to the prior Office Action because: Applicant failed to response to claims rejection under 35 U.S.C. 102 by Ross. A fully responsive reply must be timely filed, in response to this Office Action, to avoid abandonment of this application.

14. Regarding claims 4, 12, 13, 17, 25 and 26, if their parent claims are amended to overcome the rejection under 35 U.S.C. 112, they will be remain objected as being as being dependent upon a rejected base claims, as indicated, in the previous Office Action.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

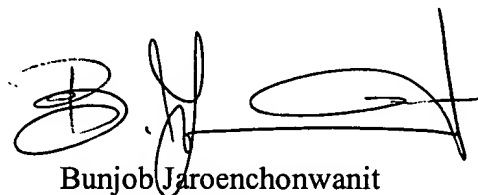
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (703) 305-9673. The examiner can normally be reached on 8:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

A handwritten signature in black ink, consisting of a stylized 'B' followed by a series of loops and a long horizontal stroke ending in a vertical line.

Bunjob Jaroenchonwanit  
Patent Examiner  
Art Unit 2143

/bj  
1/29/04